MSI Self Assessment – NAVAREA IV and XII

Submitted by: United States

SUMMARY

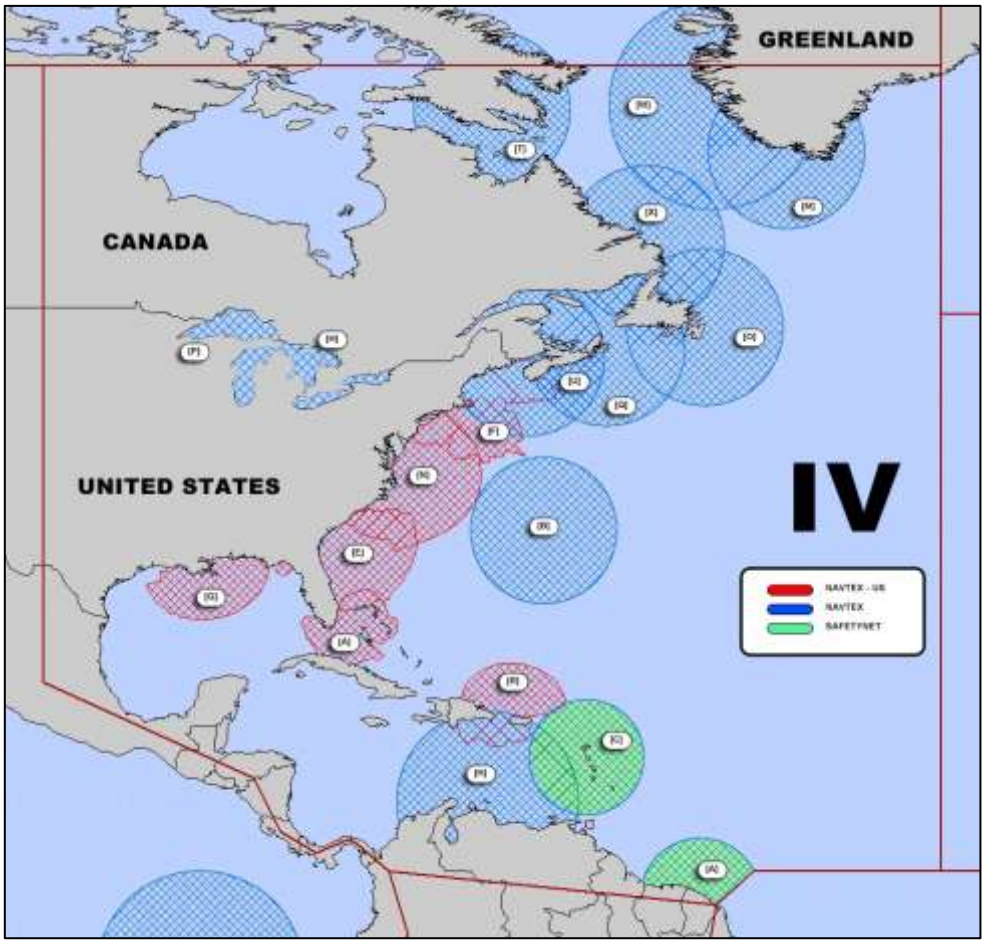
Executive Summary: Synopsis of activities within NAVAREA IV and XII since WWNWS6

Action to be taken: Note report

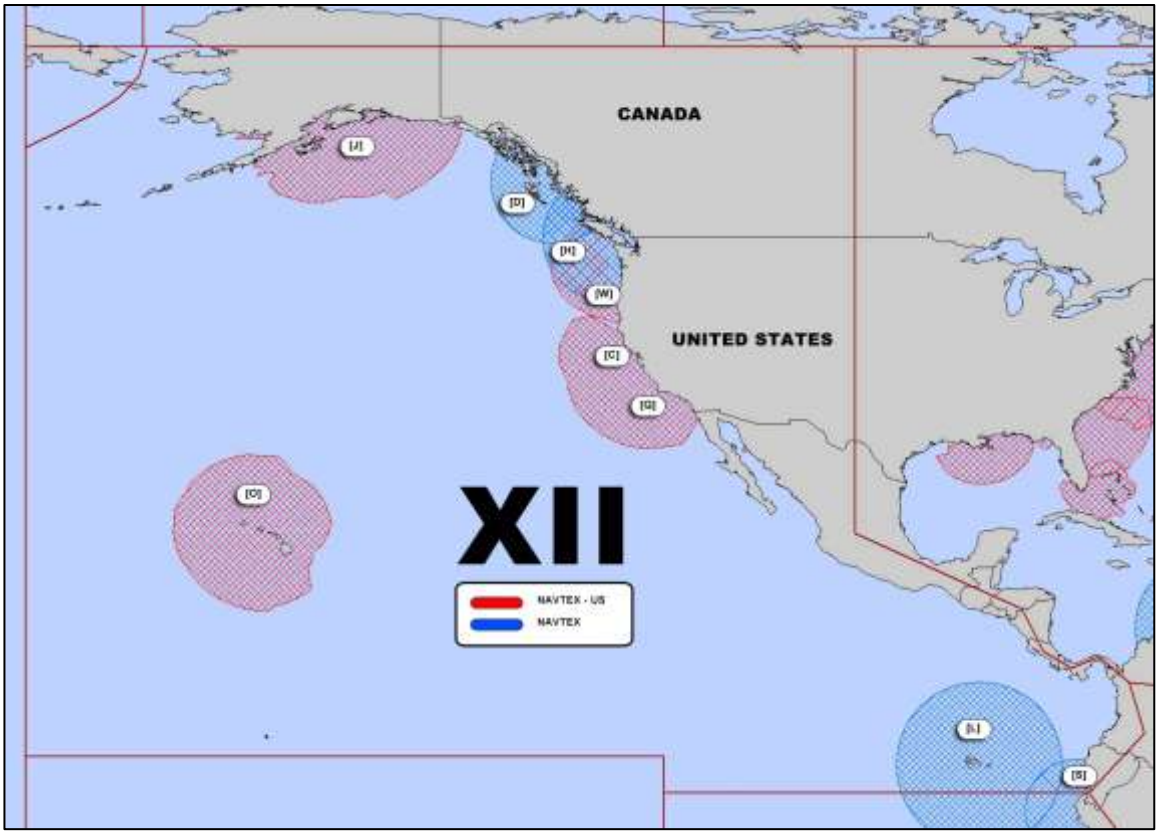
Related documents: None

1. Background:

Limits of NAVAREA IV: From the east coast boundary of Suriname to 07-00N out to 035-00W, from there to 067-00N and the coastline of Greenland, following 067-00N to the coastline of Canada (Baffin Islands area).



Limits of NAVAREA XII: from the coast line at 03-24S to 120-00W, then to 00-00, then to 180-00, then to 50-00N, and then following the International Date Line to 67-00N.



For the schedule of broadcasts for Navigational Warnings and Meteorological Information, see figure 1.

SafetyNET broadcast used
NAVAREA IV: AOR-W
NAVAREA XII: POR and AOR-W

GMDSS Service Provider
Airbus Defense and Space

Scheduled SafetyNET Broadcasts
NAVAREA IV: 1000 and 2200
NAVAREA XII: 1030 and 2230

Operational Points of Contact for National Co-ordinators within the NAVAREA

COUNTRY	NAME	TELEPHONE	FACSIMILE	EMAIL
United States	CAMSLANT, OSCS George Bannon	757-421-6271		George.J.Bannon@uscg.mil
United States	CAMSPAC	877 662 4636		d11-pf-camspaccwo@uscg.mil
United States	Coast Guard District 1	617 223 8555	617 223 8117	d01-smb-d1cmdcenter@uscg.mil
United	Coast Guard District 5	757 398	757 398 6392	d05-smb-d5cg@uscg.mil

States		6231		
United States	Coast Guard District 7	305 415 6800	305 415 6809	d07-smb-cmdcenter@uscg.mil
United States	Coast Guard District 8	504 589 6225	504 589 2148	d08-comandcenter@uscg.mill
United States	Coast Guard District 11	510 437 3701	510 437 3017	rccalameda@uscg.mil
United States	Coast Guard District 13	206 220 7001	206 220 7009	D13cc@uscg.mil
United States	Coast Guard District 14	808 535 3333	808 535 3338	jrcchonolulu@uscg.mil
United States	Coast Guard District 17	907 463 2000	907 463 2023	jrccjuneau@uscg.mil
United States	International Ice Patrol	877-423-7287	860-271-2773	iipcomms@uscg.mil
Antigua	James Lee	268-462-2494	268-462-2510 / 460-6024	Generaljay28@yahoo.com
Canada	MCTS Iqaluit	867-979-5269	867-979-4264	
Canada	JRCC Halifax	902-427-8200	902-427-2114	
Canada	MCTS Prescott	613-925-4471	613-925-4519	
Colombia	TS Mario Tapia Aviles	57-32-130-4979		Mtapia@dimar.mil.co
Costa Rica	Diego Leal Obando	(506) 2233-5022	(506) 2223-2697	dlealoba@mopt.go.cr
Curacao	Rob Jurriansen (Dutch Caribbean Coast Guard)	599 9 463 7733		rj.jurriansen@mindef.nl
Dominica	Fitzroy Pascal	1 767 449 2185	1 767 449 2020	Metoffice@cwdom.dm
El Salvador	José Navarrete López	(503) 2530-2228	(503) 2530-2228	jnavarrete@amp.gob.sv
French Antilles	Adjoint Mer Antilles (C)	596 (0)5 96 39 50 59, 596 (0)6 96 28 40 82	596 (0)5 96 39 51 65	opsmer.faa@wanadoo.fr
French Guiana	Adjoint Mer Guyane (A)	594 (0)5 94 39 56 69	594 (0)5 94 39 55 85	Nauticinfo.guyane@dirisi-cayenne.fr
Greenland	Assiaat Radio	299-130-0	299-892-777	oyr@telepost.gl
Greenland	Island Commander	299-691-911		glk-vhku@mil.dk, grnavtex@greennet.gl
Grenada	Sean Salhab	(473) 440-7678	1 868 7306454	grenport@spiceisle.com
Guatemala	Alejandro Raxon Herrera	(502) 233-44775	(502) 233-44775	hidrografia@dgam.gob.gt
Guyana	Troy Clark	(592) 226 0860		troy-evan@hotmail.com
Honduras	Javier Diaz	5 042 665 6661		Javierd_hn@yahoo.com
Jamaica	Henry Tomlinson	876 967	876 922 5765	htomlinson@jamaicaships.com

		1060		
Martinique	MRCC Fort de France	59 659 670 9292	59 659 6735730	Fortdefrance.mrcc@developpement-durable.gouv.fr
Mexico	Cap. Corb. David Jeronimo Guadarrama Mendoza	01 55 56246500 Ext 7230	01 55 56246500	depto.ayudas.nav@gmail.com
Panama	Flor Melina Pitty	507-501-5150		operaport@amp.gob.pa fpitty@amp.gob.pa
Puerto Rico	Coast Guard San Juan	7872892041	787-729-6706	SSJCC@USCG.MIL
St Kitts	Ludel Harvey	1-869-465-5451	1-869-466-7256	harveylharvey@yahoo.com
St Kitts	Ludel Harvey	1-869-465-5451	1-869-466-7256	harveylharvey@yahoo.com
St Vincent and The Grenadines	David Robin	1-784-456-1378	1-784-451-2245	svgmarad@gmail.com
Trinidad	Mark Fisher	1-868-625-3804 (Ext 409)	1-868-624-5884	msdmowt@yahoo.com

2. Comments:

Equipment Type	**Software Version (EasyMail)**	**Date of Up-date**
TT-3026S (Virginia, AOR-E)	1.15 Build 27 FW 2.25	06 FEB 09
TT-3026S (Virginia, AOR-W)	1.15 Build 27 FW 2.25	06 FEB 09
TT-3026S (Missouri, AOR-E)	1.15 Build 27 FW 2.25	06 FEB 09
TT-3026S (Missouri, AOR-W)	1.15 Build 27 FW 2.25	06 FEB 09
TT-3027M (San Diego, POR)	2.01 FW 1.05	08 JAN 14

NAVAREA Warnings Promulgated

	2013	**2014**	**2015**
NAVAREA IV	832	1099	598
NAVAREA XII	324	493	245

Information and Data Received:

201				**2014**				**2015**			
E-mail	Fax	Phone	Text	E-mail	Fax	Phone	Text	E-mail	Fax	Phone	Text
3504	60	728	19	3744	16	-	-	2197	15	-	-

NAVAREA Warnings Identified as Immediate Priority

	2013		2014		2015	
	Total	Average elapsed time	Total	Average elapsed time	Total	Average elapsed time
IV	61	16.2 Mins	122	16.1 Mins	77	19.8 Mins
XII	27	19.4 Mins	51	18.9 Mins	34	22.4 Mins

3. Coastal Warnings
    a. NAVAREA IV
        i. NAVTEX Coverage:
            1. United States
                a. Boston, Massachusetts [F] – Remote controlled from Portsmouth
                b. Chesapeake (Portsmouth), Virginia [N]
                c. Charleston, South Carolina [E] – Remote controlled from Portsmouth
                d. Miami, Florida [A] – Remote controlled from Portsmouth
                e. New Orleans, Louisiana [G] – Remote controlled from Portsmouth
                f. San Juan, Puerto Rico [R] – Remote controlled from Portsmouth
            2. Canada
                a. Iqaluit [T]
                b. Labrador [X]
                c. Saint John's [O]
                d. Sept-Isles [C]
                e. Sydney [Q]
                f. Yarmouth [U]—Remote controlled from Saint John's
            3. Greenland (Denmark)
                a. Kook Island (Nuuk) [W]
                b. Simiutaq [M]
            4. Great Lakes Region
                a. Wiarton [H] – Remote controlled from Prescot
                b. Thunder Bay [P]
            5. Bermuda (United Kingdom)
                a. Bermuda [B]
            6. Curaçao (Netherlands)
                a. Curaçao [H]
        ii. SafetyNet
            1. French West Indies [C]
            2. French Guiana [A]
    b. NAVAREA XII
        i. NAVTEX Coverage
            1. United States
                a. Kodiak, Alaska [J]
                b. Astoria, Washington [W] – Remote controlled from Point Reyes
                c. Point Reyes, California [C] – Remote controlled from Point Reyes
                d. Cambria, California [Q] – Remote controlled from Point Reyes
                e. Honolulu, Hawaii [O] – Remote controlled from Point Reyes
                f. Guam [V]
            2. Canada

a. Prince Rupert [D]
b. Tofino [H]

3. Ecuador
    a. Ayora [L] (Reported out of service in Ecuador Notice to Mariners 2/2011)
4. Peru
    a. Paita [S]

There are 18 Coastal Warning stations within NAVAREA IV, 16 NAVTEX stations and two SafetyNet stations.

There are 10 Coastal Warning stations within NAVAREA XII, all NAVTEX stations. NAVTEX Station Ayora [L] in Ecuador remains out of service.

4. Operational Issues:

On 15 April 2015, NAVAREA XII received notification by email from Astrium that a lunar eclipse would interrupt the services provided by the POR (3F3) satellite from 2200 UTC on 18 April until 1000 UTC on 19 April. NAVAREA XII received similar information over the POR satellite, although the message was incomplete.

The contingency guidance Astrium provided, via Inmarsat, was a proactive measure. However, it was difficult to understand and to comprehend what the potential negative impact might be. Inmarsat stated that, as a precautionary measure to ensure global continuity, the POR service would be transferred to the adjacent I4 satellites (4F1 at 143.5E and 4F3 at 98W). It advised users operating in the Pacific Ocean area between longitude 120W and 160W using LES ID 201 to change to LES ID 204 during the eclipse time period, and revert to LES 201 at the end of the eclipse. There were more detailed instructions for Coburn (Thrane & Thrane) end users with specific models. I am not sure how often lunar eclipses of this magnitude occur, but I have some reservations that end users were able to execute Inmarsat's recommendations or received them in their entirety.

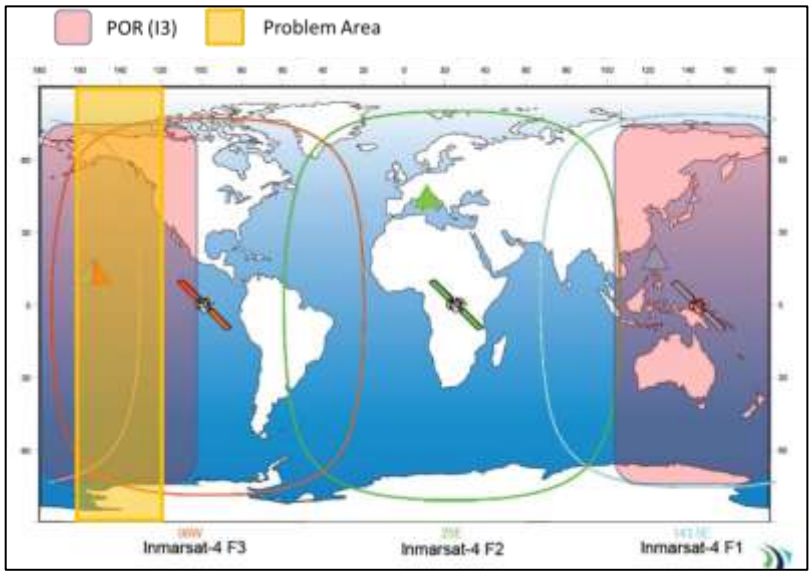


Figure 1 Lunar eclipse effect (18/19 April 2015)

5. Quality Management Survey

NAVAREA	ISO 9001 - 2000	Promulgate "In-Force" Bulletins	Promulgate "No-Warning" Messages	Monitor Broadcast in almost real time	24/7 contact information provided	Promulgate two scheduled broadcasts	IMO Master Plan updated
IV and XII	YES	YES	YES	YES	YES	YES	YES

6. Contingency Planning:

NAVAREA IV and XII have fully redundant along with site separated NAVAREA operational systems to include: satellite transceivers, telecommunications, internet and desktop PC's. Operations are tested on a daily basis at both locations to ensure full continuity of NAVAREA operations.

7. Capacity Building:

The IHO WWNWS-SC continues to provide training and practical guidance for those who are concerned with drafting navigational warnings or with the issuance of Maritime Safety Information (MSI) for the high seas. To date, there have been fourteen training courses provided since its initial offering in 2007. NAVAREA IV/XII facilitated two courses in 2014. It assited with the eleventh course in Wellington, New Zealand in August 2014 along with support from NAVAREA X and led by NAVAREA XIV. That course supported the South-West Pacific Hydrographic Commission (SWPHC). NAVAREA IV/XII facilitated the thirteenth course along with support from NAVAREA X in Muscat, Oman in December 2014, which supported the Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area Hydrographic Commission (RSAHC) and the North Indian Ocean Hydrographic Commission (NIOHC). The training effort intends to contribute to safer navigation for the region and establish an active regional coordination team of experts who will continue to collaborate with the respective NAVAREA Coordinator in the area of influence. These courses are primarily organized through the leadership and instructor support from NAVAREA's I, II, IV and XII with additional instructor support provided by the NAVAREA Coordinator(s) within the RHC.

8. Other Activities:

NAVAREA IV/XII continues to develop a Microsoft Access database to facilitate the output of navigational warnings in other geospatial formats, in addition to the Google Earth kmz file it currently provides. The database will manage source, create products, capture watch officer performance and interface with ESRI ArcGIS. NAVAREA IV/XII currently has a prototype display that depicts all in force warnings. It will work in any web browser and scale in size to adapt to smart phones and tablets. NAVAREA IV/XII expects to have a near, real time display complete by December 2015 if not sooner. It expects the database to be complete in early 2016.

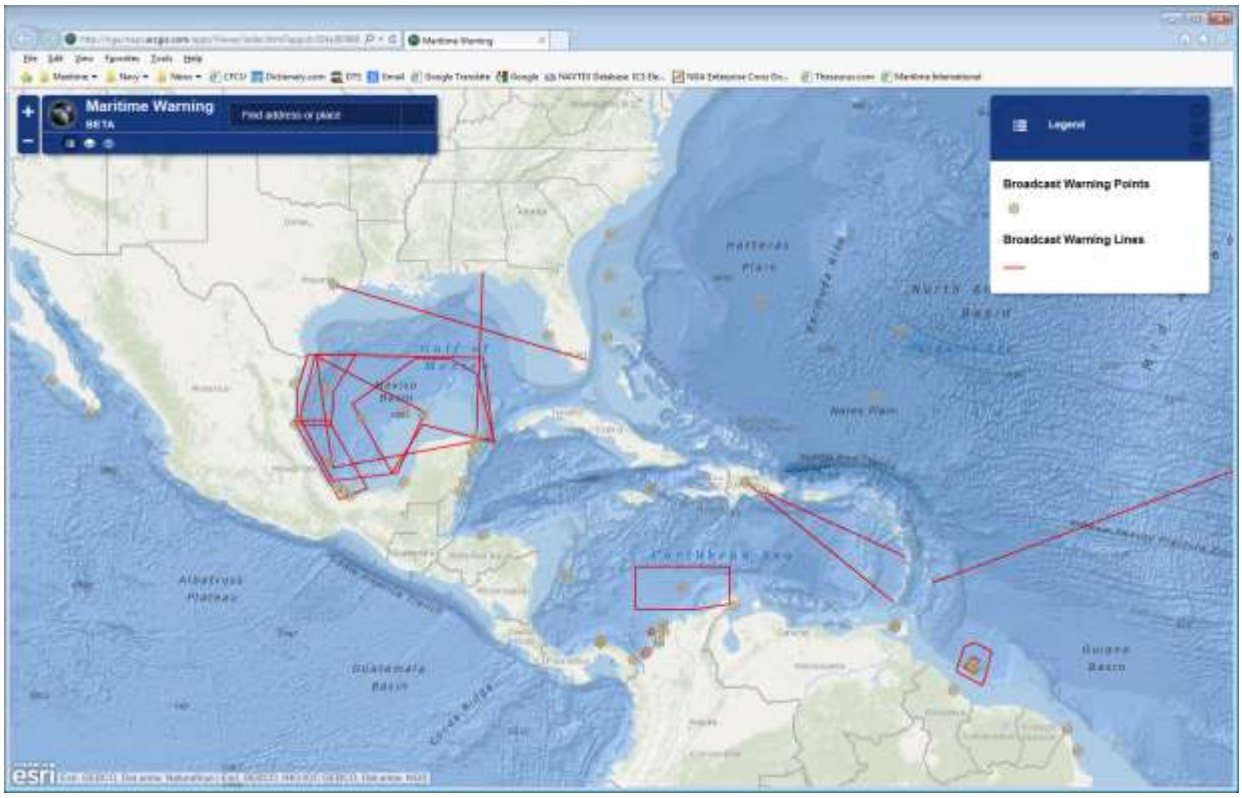


Figure 2 NAVAREA IV MSI Prototype

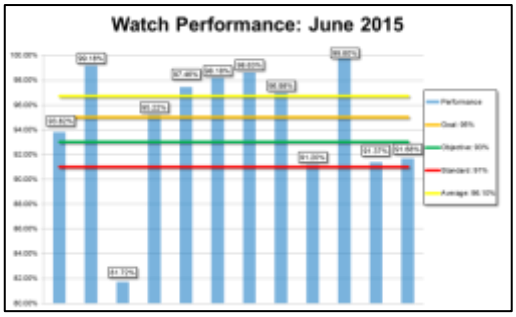


Figure 3 Watch Officer Performance Metrics

Over the course of the year, NAVAREA IV/XII observed that several U.S. Rescue Coordination Centers (RCC) were not issuing cancellation messages at the termination of search and rescue operations, which they are required to do per the Joint IMO/International Civil Aviation Organization (ICAO) International Aeronautical and Maritime Search and Rescue Manual (IAMSAR). NGA issues SAR warnings within NAVAREA IV/XII to U.S. military and government vessels because they do not carry Inmarsat C equipment. NGA contacted those RCCs to gently remind them of the requirement and, in most cases, to educate them that the requirement existed. NGA felt this problem might be more widespread and contacted the Chairman of the IMO/ICAO Joint Working Group, to raise NGA's concern at its next meeting.

Attended the Radio Technical Commission for Maritime Services (RTCM) annual meeting (May 2015) and provided two presentations. One in plenary titled "Providing MSI to the Mariner" and one to the GMDSS Task Force titled "The Inmarsat SafetyNET Broadcast System". The first presentation focused on Coastal and NAVAREA warnings and served as a platform to expose the need to improve quality and consistency of U.S. NAVTEX warnings. NAVAREA IV/XII presented examples that detailed numerous inconsistencies, highlighted IMO guidance documents that could help, and explained the benefits of a consistent structure—how that would allow NAVTEX warnings to be geospatially enabled. The GMDSS Task Force presentation highlighted similar topics and focused on the need for improved RCC policies with respect to cancellation messages. Based on progress made at RTCM, NGA followed up with site visits to Communications Area Master Station Atlantic (CAMSLANT), which remotely controls U.S. NAVTEX stations on the east coast, and RCC Norfolk, which also generates coastal warnings outside of regular business hours. Both visits were extremely beneficial for both sides and laid the foundation for much better collaboration. Additionally, NAVAREA IV/XII submitted a paper and made a presentation at the annual U.S. HYDRO conference (May 2015). The title of the paper is Modernization and Geographic

Representation of U.S. Coastal Warnings: How do we get there? It can be found online at http://www.ushydro.org/2015/papers/default.aspx under the heading "Automatically geospatially enabling Coastal NAVTEX Warnings for NAVAREA IV".

NGA attended the 2014 Meso American - Caribbean Sea Hydrographic Commission (MACHC) meeting held in Mexico. NAVAREA IV/XII developed an MSI presentation that the U.S. representative from NGA provided. The presentation highlighted excellent MSI support from Mexico, Colombia, Guyana, and Honduras. Support from these countries contributed to 149 navigational warnings in 2014.

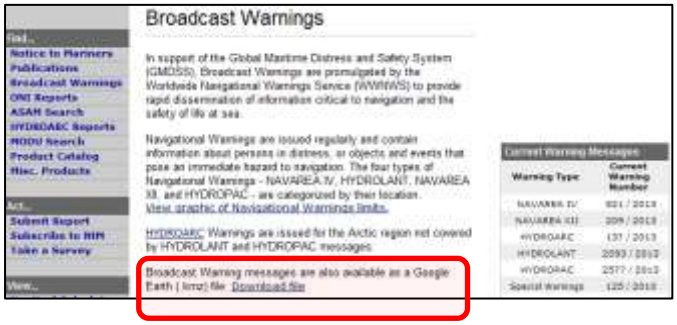
Proposed new NAVTEX stations:

Conferences supported by the NAVAREA IV and XII Coordinator the past year:
WWNWS6 Wellington, New Zealand—August 2014
MSI Course Wellington, New Zealand—August 2014
MSI Course Muscat, Oman—December 2014
Provided MSI presentation for MACHC—December 2014
IMO NCSR2 Meeting, IHO Rep, London—March 2015
IHO WWNWS Guidance Document Review Meeting, Mar 2015
US HYDRO Conference Washington, D.C.—May 2015
Radio Technical Commission for Maritime Services Annual Assembly Meeting—May 2015
Navigation Interagency Advisory Group Washington, D.C.—July 2015

9. NAVAREA Website:

http://msi.nga.mil/NGAPortal/MSI.portal

In-Force NAVAREA IV and XII messages are posted each morning from the previous 24hrs. Active NAVAREA IV and XII messages can be queried by a variety of menu options to include by specific NAVAREA, by NAVAREA number, by a NAVAREA number range and by date and date range.



10. NAVAREA Contact Information:

U.S.A. (NAVAREA IV & XII)
Mr. Peter Doherty
Deputy Director
NSG Operations Executive (NOX)
ATTN: N65-SH
7500 GEOINT Drive
Springfield, Virginia 22150-7500
Tel: +1 (571) 557 6746
Fax: +1 (571) 558 3261
E-mail: Peter.M.Doherty@nga.mil
E-mail (MSI for NAVAREA IV or XII): navsafety@nga.mil

11. Recommendations:

None

12. Actions requested:

Note the information provided

13. Synopsis:

The NAVAREA IV and XII Coordinator presented an overview of his self-assessment paper and noted that all broadcast messages, which are promulgated during the previous 24 hours, are posted to the NGA website. He stated that NAVAREA IV and XII have a business continuity plan and messages are promulgated from a secondary site on a routine basis, totally transparent to the shipboard user. He noted the effect the April lunar eclipse had on the POR satellite. He described new database development to manage source, warnings, watch officer performance and how it would interact with ESRI ArcGIS to produce a near, real time graphic representation of navigation warnings 24x7. He explained how NAVAREA IV/XII made progress towards more consistent and structured U.S. Coastal Warnings through participation at RTCM and the U.S. HYDRO Conference, and through visits to CAMSLANT and RCC Norfolk. He covered NGA participation at the MACHC and thanked Mexico, Colombia, Honduras, and Guyana for their excellent MSI support. Lastly, he discussed potential new NAVTEX stations in Mexico, Colombia and Honduras.

FIGURE 1

PROMULGATION OF MARITIME SAFETY INFORMATION BY U.S. INFORMATION PROVIDERS

SCHEDULED BROADCAST TIMES

WHAT	WHO	WHEN (UTC)	HOW	NAVAREA/ METAREA	SATELLITE
High seas warnings and forecasts	NWS	0430, 1030, 1630, 2230	SafetyNET	IV	AOR-W
High seas warnings and forecasts	NWS	0545, 1145, 1745, 2345	SafetyNET	XII	AOR-W/POR
High seas warnings and forecasts	NWS	0515, 1115, 1715, 2315	SafetyNET	XVI	AOR-W
Hurricane advisories West Atlantic	NWS	as required	SafetyNET	IV	AOR-W
Hurricane advisories East Pacific	NWS	as required	SafetyNET	XII	POR/AOR-W
Hurricane advisories Central Pacific	NWS	as required	SafetyNET	XII	POR
Long range navigational warnings	NGA	1000, 2200	SafetyNET	IV	AOR-W
Long range navigational warnings	NGA	1030, 2230	SafetyNET	XII	POR/AOR-W
Long range search and rescue	USCG	upon receipt	SafetyNET	IV/XII	AOR-W/POR
Coastal MSI	USCG	4 to 6 times daily for routine traffic; upon receipt for distress	NAVTEX	Generally, within 200 miles of the coastline	None; see Pub 117 for stations and times
Status of ice in North Atlantic Ocean	IIP	2200	SafetyNET	IV	AOR-W